

A.4.18 AOC 28

Description

AOC 28, located in the Asphalt Plant of the Refinery's East Yard, consists of two former ASTs and one pump pad structure. Both of these tanks (Tank 718 and 719) were approximately 25 feet in diameter and had a capacity of approximately 20,000 Bbls. Both tanks were demolished in March of 1999. The pump pad area is approximately 10 feet by 20 feet and remains intact.

Chevron identified former Tanks 718 and 719 as an AOC during demolition of 15 ASTs in the East Yard Asphalt Plant area after petroleum impacted soils (which appeared historic in nature) were found beneath the floors of Tanks 718 and 719. Chevron excavated the extent of the stained soils and performed post-excavation sampling as documented in Chevron's Third Quarter 1999 Progress Report.

AOC 28 was designated as an LNAPL area after LNAPL was detected in temporary well point H0556 that was installed during the 1st-Phase Groundwater Investigation. The LNAPL identified at AOC 28 is located in the footprint of former Tank 719, which was used historically to store a Refinery intermediate distillate product used in asphalt blending operations.

Soil

In August 1999, Chevron excavated the extent of visually impacted soils in the area of Former Tanks 718 and 719. Once complete, the excavation within the footprint of Tank 718 measured approximately 90 feet in perimeter and encompassed approximately 670 square feet. The excavation varied in depth, with a maximum depth of approximately two feet. A total of approximately 50 cubic yards of soil were removed and stockpiled. The excavation within the footprint of Tank 719 measured approximately 80 feet in perimeter and encompassed approximately 460 square feet. The maximum depth was approximately two feet. A total of approximately 35 cubic yards of soil were removed from the Tank 719 excavation.

A total of four post-excavation samples were collected within the Tank 718 excavation area, and three post-excavation samples were collected within the Tank 719 excavation, as described in the Third Quarter 1999 Progress Report. Five of these samples were collected from the bottom-most six inches of the excavation sidewall, and three of the samples were collected from the excavation bottom. Samples were analyzed for TPH by OQA/QAM-025. Contingent volatile and semi-volatile analyses were performed on two of the samples exhibiting the highest TPH results (PE130 and PE134). The contingent analyses included Skinner List VOCs and Skinner List SVOCs. Sampling locations were biased to areas exhibiting the highest PID readings or visible signs of residual contamination.

No soil samples exhibited a TPH concentration in excess of 10,000 mg/kg. Benzo(a)pyrene (0.75 mg/kg) and benzo(b)fluoranthene (1.2 mg/kg) were the only compounds detected above the soil delineation criteria in one of the post-excavation samples (PE133). This sample was collected from the Tank 719 excavation area. No exceedances were detected in soils from the Tank 718 excavation area.

Groundwater

As described in Attachment 1 to the CA00-2 Quarterly Report, Chevron also conducted a 1st- Phase RFI Groundwater Investigation. Four groundwater samples (H0536 through H0539) were collected and analyzed for Skinner List VOCs, and SVOCs.

In March 2001, four additional groundwater samples were collected (H0554, H0555, H0556 and H0558) and submitted for VOC and SVOC analyses. No exceedances were detected, although visible LNAPL was observed on a probe retrieved from H0556 (A28TP1). Subsequently, seven additional piezometers were installed in proximity to the former Tank Basin 719 (A28TP2 through A28TP8) for the purposes of LNAPL delineation. LNAPL was not observed in any of these piezometers.

Conclusions

As discussed in detail in Section 7, the lateral and vertical extent of LNAPL at AOC 28 has been delineated. The LNAPL that is present within AOC 28 appears to be residual and extremely degraded. Groundwater has not been impacted by this AOC, as demonstrated by the fact that COCs have not been detected above the applicable groundwater delineation criteria in any of the eight groundwater samples collected from AOC 28. However, benzo(a)pyrene and benzo(a)anthracene were detected slightly above the delineation criteria in one of the post-excavation soil samples collected from AOC 28. Therefore, the use of engineering controls/deed restrictions at AOC 28 will be considered in the CMS.